REMARKS

Entry of the foregoing, reexamination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow are respectfully requested.

Claims 22-25, 27-34 and 36-43 are pending in the application, claims 26 and 35 having been canceled above.

By the above amendments, claims 26 and 35 have been canceled to avoid claiming subject matter already claimed in preceding claims. Claim 22 has been amended by deleting the words "contains only SiH groups and." Claim 24 has been amended by removing the paragraph under formula VII, which was inadvertently included in the claim. Claim 27 has been amended to replace the word "and" with the word --or-- to obviate the §112 rejection. Claim 38 has been amended by replacing the word "vanishing" with the word --varnish--. Claim 40 has been amended by replacing the words "characterized in that" with the word --wherein--, so that the claim is in a form more consistent with conventional U.S. patent practice. Claim 41 has been amended to further define the process as including --hydrosilylating polyorganohydrosiloxane with synthons in the presence of the catalytic composition--.

Turning now to the Official Action, claim 41 stands rejected under 35 U.S.C. §112, first paragraph, as failing to be sufficiently enabled by the specification. Applicants have amended claim 41 to obviate this rejection. More specifically, Applicants have amended claim 41 by deleting the words "forming functionalized silicon oils" and adding the words

--hydrosilylating a polyorganohydrosiloxane with synthons in the presence of the catalytic composition--.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 22, 27, 38 and 41 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants have amended claims 22, 27, 38 and 41 to obviate this rejection. More specifically, Applicants have amended claim 22 by deleting the words "contains only SiH groups." Applicants have amended claim 27 by replacing the word "and" with the word --or--. Applicants have replaced the word "vanishing" in claim 38 with the word --varnish--. Additionally, as discussed above with respect to the §112, first paragraph, rejection, Applicants have amended claim 41 by deleting the words "forming functionalized silicon oils" and inserting the words --hydrosilylating a polyorganohydrosiloxane with synthons in the presence of the catalytic composition--.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 26 and 35 stand objected to under 37 C.F.R. §1.75(c) as being in improper dependent form. Applicants have canceled claims 26 and 35 to obviate this rejection. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 22, 24-30, 32 and 41 stand rejected under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under §103(a) as being obvious over Jachman (U.S. Patent No. 5,187,251). Additionally, claims 34-38 and claims 23, 30-31, 33, 39, 40 and 42 stand rejected under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) as being anticipated by

and obvious over Jachman, respectively. For at least the reasons that follow, reconsideration and withdrawal of the §102 and §103 rejections are in order.

The present invention relates to a novel process for the preparation of functionalized silicone oils having at least one hydrocarbon-containing ring in which is included an oxygen atom. In particular, the subject matter of the present invention relates to a process for hydrosilylation between polyorganohydrosiloxanes and unsaturated units including at least one hydrocarbon-containing ring having an oxygen atom. Some of the advantages associated with the claimed process include the formation of a polyorganosiloxane having a stable viscosity and being non-turbid.

For example, independent claim 22, as amended above, sets forth a process for the preparation of a nonturbid, functionalized silicone oil of stable viscosity by hydrosilylation of a polyorganohydrosiloxane with synthons. The synthons being hydrosilylated with the polyorganohydrosiloxane being different or identical, and comprising at least one hydrocarbon-comprising ring in which is included at least one oxygen atom. The hydrosilylation reaction is carried out in the presence of a heterogeneous catalytic composition comprising a metal selected from the group consisting of cobalt, rhodium, ruthenium, platinum and nickel deposited on an inert support, said inert support selected from the group consisting of carbon black, charcoal, alumina, silicate and barium oxide. Further, the polyorganohydrosiloxane is linear or cyclic and has a specified mean formula.

Jachman relates to curable polyorganohydrosiloxanes having epoxy groups. The invention of Jachman also relates to a method for synthesizing these curable polyorganohydrosiloxanes having epoxy groups and to the use thereof as curable coating

materials with adhesive properties, as casting compositions and as coating materials for glass fibers. See Jachman at column 1, lines 9-15.

Jachman fails to disclose or fairly suggest each feature of the presently claimed invention. For example, both the reactants and the final product of Jachman are substantially different from the reactants used and the final product obtained in the process of the presently claimed invention.

In particular, the starting polyorganohydrogensiloxane of Jachman is not covered by the formula XVI or XVII as defined in independent claim 22. For example, see Jachman at column 8, lines 56-60, where Jachman discloses that the starting polyorganohydrogensiloxane contains an epoxy group and a SiH group. Upon examination of the polyorganohydrosiloxanes defined in independent claim 22, Applicants respectfully submit that one of ordinary skill in the art would recognize that the claimed polyorganohydrosiloxanes only include SiH reactive groups and do not contain any epoxy groups. Accordingly, Applicants respectfully submit that it is evident that the reactants used in the process of Jachman are substantially different from the reactants of the presently claimed invention.

Additionally, the "final" polyorganosiloxane produced by the process of Jachman is substantially different from the "final" polyorganosiloxane of the presently claimed invention. In fact, because the reactants used in the process of Jachman are different from the reactants used in the presently claimed invention, the final polyorganosiloxane of the presently claimed invention could not even be obtained using the process of Jachman. Indeed, the final polyorganosiloxane of Jachman contains both epoxy groups and $-R_3OH$

groups. Additionally, the final polyorganosiloxane of Jachman is obtained by hydrosilylation of the Jachman starting polyorganohydrogensiloxane (containing both epoxy groups and SiH groups) and appropriate alcohols (R^5OH) with terminal olefinic double bonds. See Jachman at col. 7, line 55 to col. 8, line 60.

In view of these substantial differences, Applicants respectfully submit that the process of the presently claimed invention is neither anticipated by nor would it have been obvious over Jachman. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited.

If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at the Examiner's earliest convenience.

Respectfully submitted,

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Date: March 6, 2002

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Attachment to Amendment dated February 7, 2002

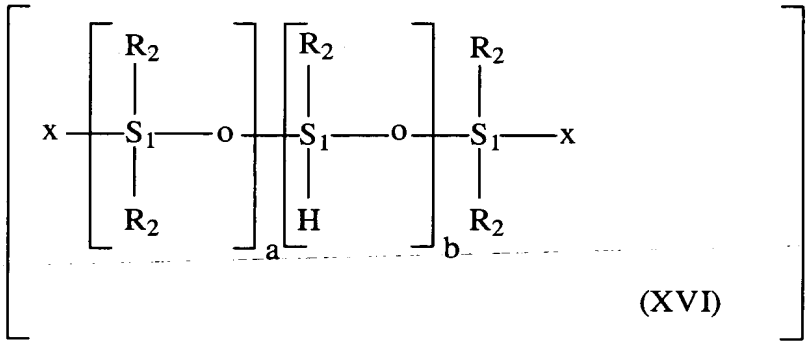
Marked-up Claims 22, 24, 27, 38, 40 and 41

22. (Amended) Process for the preparation of a nonturbid, functionalized siliconee oil of stable viscosity by hydrosilylation of a polyorganohydrosiloxane with synthons wherein:

(1) the synthons hydrosilylated with the polyorganohydrosiloxane are different or identical, comprising at least one hydrocarbon-comprising ring in which is included at least one oxygen atom,

(2) said hydrosilylation reaction is carried out in the presence of a heterogeneous catalytic composition comprising a metal selected from the group consisting of cobalt, rhodium, ruthenium, platinum and nickel deposited on an inert support, said inert support selected from the group consisting of carbon black, charcoal, alumina, silicate and barium oxide, and

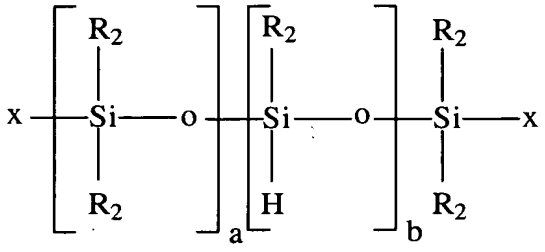
(3) the polyorganohydrosiloxane [contains only SiH groups and] is linear or cyclic and has the mean formulae:



(XVI)

Attachment to Amendment dated February 7, 2002

Marked-up Claims 22, 24, 27, 38, 40 and 41



(XVI)

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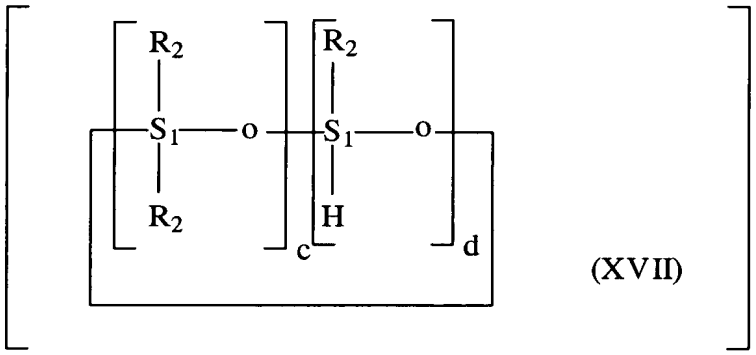
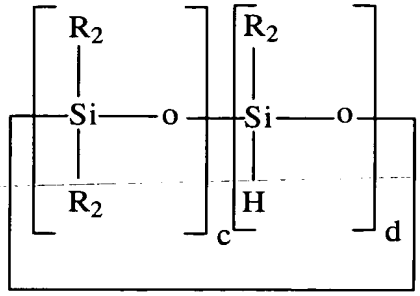
and/or



(XVII)



(XVII)

Attachment to Amendment dated February 7, 2002

Marked-up Claims 22, 24, 27, 38, 40 and 41

in which:

- the symbols [R2] R_2 are identical or different and correspond to a monovalent hydrocarbon-comprising radical chosen from the phenyl radical and linear or branched alkyl radicals having from 1 to 6 carbon atoms;
- the symbols x are identical or different and correspond to a monovalent radical chosen from R_2, a hydrogen atom, a methoxy radical and an ethoxy radical;
- a and b are integers or fractions, such that:

  - $0 < a \leq 200$,

  - $0 \leq b < 200$,

  - and at least one of the two X groups corresponds to the hydrogen radical if $b = 0$,

  - $5 < a + b \leq 200$;

- c and d are integers or fractions, such that:

  - $0 < c < 5$,

  - $1 < d < 10$,

  - $3 \leq a + b < 10$.

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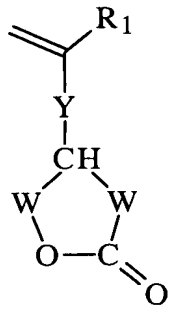
Marked-up Claims 22, 24, 27, 38, 40 and 41

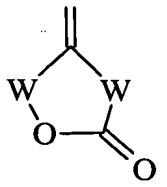
24. (Amended) Process according to claim 22, wherein the synthons comprise at least one hydrocarbon-comprising ring in which is included an oxygen atom, the synthons having the formula:

■ (1)



(I)

and/or



(II)

in which:

■ the symbols W are identical or different and correspond to a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms, it being possible for one of the symbols W to be a free valency;

■ the symbol Y corresponds to a free valency or a divalent radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms which can comprise a heteroatom;

■ the symbol R_1 corresponds to a hydrogen atom or monovalent hydrocarbon-comprising radical comprising linear or branched alkyl radicals having from 1 to 12 carbon atoms;

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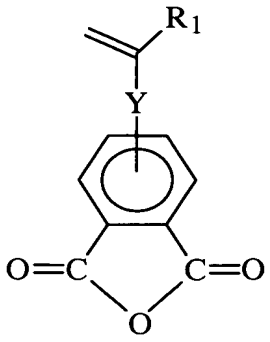
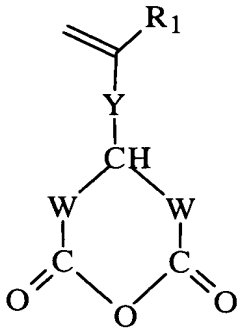
Marked-up Claims 22, 24, 27, 38, 40 and 41

■ (2)



(III)

and/or



(IV)

in which:

■ the symbols W are identical or different and correspond to a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms, it being possible for one of the symbols W to be a free valency;

■ the symbol Y corresponds to a free valency or a divalent radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms which can comprise a heteroatom;

■ the symbol R_1 corresponds to a hydrogen atom or monovalent hydrocarbon-comprising radical comprising linear or branched alkyl radicals having from 1 to 12 carbon atoms;

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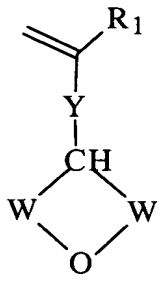
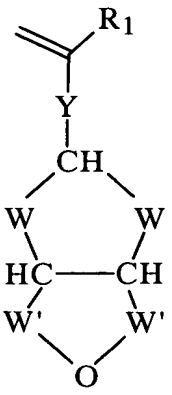
Marked-up Claims 22, 24, 27, 38, 40 and 41

■ (3)



(V)

and/or



(VI)

in which:

■ the symbols W are identical or different and correspond to a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms which can comprise at least one hydroxyl functional group, it being possible for one of the symbols W to be a free valency for (V) and it being possible for both symbols W simultaneously to be a free valency for (VI);

■ the symbols W' are identical or different and correspond to a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms, it being possible for at least one of the symbols W' to be a free valency;

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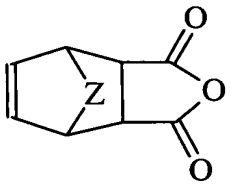
Marked-up Claims 22, 24, 27, 38, 40 and 41

- the symbol Y corresponds to a free valency or a divalent radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms which can comprise a heteroatom;
- the symbol R_1 corresponds to a hydrogen atom or monovalent hydrocarbon-comprising radical comprising linear or branched alkyl radicals having from 1 to 12 carbon atoms; and
- (4)



(VII)

in which:

[■ the symbols W are identical or different and correspond to a free valency or a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 2 carbon atoms;]

- the symbol Z corresponds to a divalent radical comprising a carbon atom or a heteroatom.

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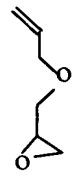
Marked-up Claims 22, 24, 27, 38, 40 and 41

27. (Amended) Process according to claim 24, wherein the synthon has the formula: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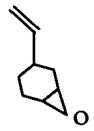
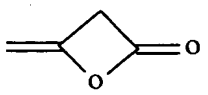
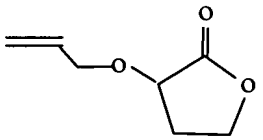

(IX),

(X),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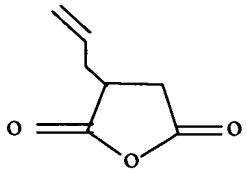
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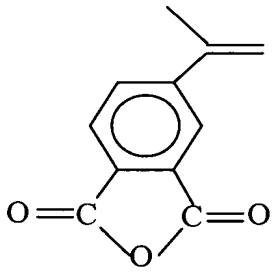
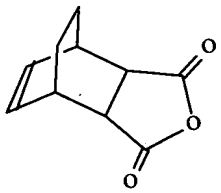
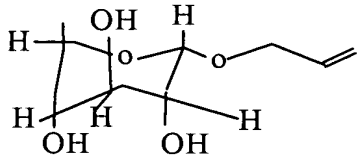

(XIII),

(XIV)

[and] or


(XV).

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Marked-up Claims 22, 24, 27, 38, 40 and 41

38. (Amended) A process of the preparation of varnishes, inks and/or coatings comprising forming a [vanishing] varnish; ink and/or coating from components comprising the siliconee oil according to claim 34.

40. (Amended) Process according to claim 39, [characterized in that] wherein the polyorganohydrosiloxane and the synthon react in the reaction mixture in the absence of solvent.

41. (Amended) A process for the preparation of functionalized silicone oils which are stable and nonturbid, comprising providing a heterogeneous catalytic composition comprising a metal selected from the group consisting of cobalt, rhodium, ruthenium, platinum and nickel deposited on an inert support, said inert support being selected from the group consisting of carbon black, charcoal, alumina, silicate and barium oxide and [forming functionalized silicone oils] hydrosilylating a polyorganohydrosiloxane with synthons in the presence of the catalytic composition.